

## WHAT IS CLAIMED IS:

1. A cage assembly adapted to be implanted in a spinal column for treating degenerative or ruptured discs and replacing damaged vertebral bodies, said assembly comprising a rigid cage formed in an annular configuration of a biologically inert material, said cage having opposed upper and lower surfaces extending about perimeter portions thereof, an annular side wall extending between said surfaces, a plurality of raised ridges projecting outwardly from each of said perimeter surfaces for engaging the spinal column and securing the assembly therein, a plurality of spaced apertures in said side wall for use in positioning said cage in the spinal column in a desired angular orientation and a pair of axially aligned openings extending axially through said cage, said openings being adapted to be packed with bone graft material to expedite the fusion of the cage assembly in the spinal column.

2. The cage assembly of claim 1 wherein the ridges on at least a portion of one of said surfaces are angularly offset with respect to the ridges on at least a portion of the other of said surfaces whereby sliding movement of the cage assembly with respect to the spinal column is inhibited.

3. A cage assembly adapted to be implanted in a spinal column for treating degenerative or ruptured discs and replacing damaged vertebral bodies, said assembly comprising at least one rigid cage formed in an annular configuration of a biologically inert material, said cage having opposed upper and lower surfaces extending about perimeter portions thereof, an annular side wall extending between said surfaces, a transverse inner wall extending

across said cage, a plurality of raised ridges projecting outwardly from each of said perimeter surfaces for engaging the spinal column and securing the assembly therein, a plurality of spaced apertures in said side wall for use in positioning said cage in the spinal column in a desired angular orientation and a pair of axially aligned openings extending axially through said cage, said openings being adapted to be packed with bone graft material to expedite the fusion of the cage assembly in the spinal column.

4. The cage assembly of claim 3 wherein at least one of said perimeter surfaces of said cage defines a plurality of indexing members thereon and wherein said cage assembly includes at least one spacing element adapted to be secured to said one cage for the stacked attachment of said cage with a second cage, said indexing members cooperating with portions of said spacing element for axially aligning said spacing element with said one cage.

5. The cage assembly of claim 3 wherein at least one of said perimeter surfaces of said cage defines a plurality of indexing members thereon and wherein said cage assembly includes at least one spacing element adapted to be secured to said one cage for the stacked attachment of said cage with a second cage, said spacing element comprising an annular ring portion, a transverse portion extending thereacross, a first plurality of indexing members adapted to engage said indexing members on said one cage for axially aligning said spacing element with said one cage such that said ring and transverse portions of said spacing element are disposed over and axially aligned with said upper surface and said transverse inner wall of said one cage and a

second plurality of indexing members for engaging and axially aligning a second cage with said one cage.

6. The cage assembly of claim 3 including a second cage having substantially the same configuration as said one cage and a spacing element adapted to be secured to and between said one cage and said second cage for forming a rigid stacked cage configuration of a predetermined axial length, said cages each defining indexing members thereon adapted to cooperate with said spacing element so as to axially align said one cage with said second cage and including attachment members carried by said spacing element for engaging said cages so as to define a rigid securement of said cages to said spacing element.

7. The cage assembly of claim 3 wherein the ridges on at least a portion of one of said surfaces are angularly offset with respect to the ridges on at least a portion of the other of said surfaces whereby sliding movement of the cage assembly with respect to the spinal column is inhibited.

8. The cage assembly of claim 4 wherein said indexing members on said one cage comprise a plurality of apertures in said upper surface of said one cage and wherein said spacing element defines a first plurality of indexing pins adapted to be received in said apertures in said one cage for axially aligning said spacing element with said one cage.

9. The cage assembly of claim 4 wherein said annular side wall of said one cage assembly and said spacing element are substantially half-moon-shaped so as to generally conform with cross-sectional configuration of

the portion of the spinal column within which said cage assembly is to be inserted.

10. The cage assembly of claim 4 wherein said annular side wall of said one cage assembly and said spacing element are substantially kidney-shaped so as to generally conform with cross-sectional configuration of the portion of the spinal column within which said cage assembly is to be inserted.

11. The cage assembly of claim 5 wherein said spacing element additionally comprises a first pair of resilient locking members carried by said transverse portion thereof for engaging said transverse wall portion of said one cage, rigidly securing said spacing element to said one cage, and a second pair of resilient locking members carried by said transverse portion of said spacing element and extending in an opposed direction from said first pair of locking members for rigidly securing said spacing element to a second cage.

12. The cage assembly of claim 6 wherein said spacing element comprises an annular ring portion and a transverse portion extending thereacross said portions of said spacing element being configured such that upon said spacing element being secured to and between said cages, said assembly defines a substantially continuous annular configuration.

13. The cage assembly of claim 6 wherein said continuous annular configuration is substantially half-moon-shaped.

14. The cage assembly of claim 6 wherein said continuous annular configuration is substantially kidney-shaped.

15. The cage assembly of claim 8 wherein said spacing element defines a second plurality of indexing pins axially aligned with and projecting

in an opposed axial direction from said spacing element as said first plurality of indexing pins for the securement of said one cage with a second cage.

16. A cage assembly adapted to be implanted in a spinal column for treating degenerative or ruptured discs and replacing damaged vertebral bodies, said assembly comprising at least one rigid cage formed in an annular configuration of a biologically inert material, said cage having opposed upper and lower surfaces extending about perimeter portions thereof, an annular side wall extending between said surfaces, a plurality of raised ridges projecting outwardly from each of said perimeter surfaces for engaging the spinal column and securing the assembly therein, a plurality of spaced apertures in said side wall for use in positioning said cage in the spinal column in a desired angular orientation and a pair of axially aligned openings extending axially through said cage, said openings being adapted to be packed with bone graft material to expedite the fusion of the cage assembly in the spinal column.

17. The cage assembly of claim 16 wherein at least one of said perimeter surfaces of said cage defines a plurality of indexing members thereon and wherein said cage assembly includes at least one spacing element adapted to be secured to said one cage for the stacked attachment of said cage with a second cage, said indexing members cooperating with portions of said spacing element for axially aligning said spacing element with said one cage.

18. The cage assembly of claim 16 wherein at least one of said perimeter surfaces of said cage defines a plurality of indexing members thereon and wherein said cage assembly includes at least one spacing element

adapted to be secured to said one cage for the stacked attachment of said cage with a second cage, said spacing element comprising an annular ring portion, a first plurality of indexing members adapted to engage said indexing members on said one cage for axially aligning said spacing element with said one cage such that said ring portion of said spacing element is disposed over and axially aligned with said upper surface of said one cage and a second plurality of indexing members for engaging and axially aligning a second cage with said one cage.

19. The cage assembly of claim 16 including a second cage having substantially the same configuration as said one cage and a spacing element adapted to be secured to and between said one cage and said second cage for forming a rigid stacked cage configuration of a predetermined axial length, said cages each defining indexing members thereon adapted to cooperate with said spacing element so as to axially align said one cage with said second cage and including attachment members carried by said spacing element for engaging said cages so as to define a rigid securement of said cages to said spacing element.

20. The cage assembly of claim 16 wherein the ridges on at least a portion of one of said surfaces are angularly offset with respect to the ridges on at least a portion of the other of said surfaces whereby sliding movement of the cage assembly with respect to the spinal column is inhibited.

21. The cage assembly of claim 16 wherein said annular configuration defines a modified kidney-shape.

22. The cage assembly of claim 16 wherein said annular configuration defines an oval.

23. The cage assembly of claim 17 wherein said indexing members on said one cage comprise a plurality of apertures in said upper surface of said one cage and wherein said spacing element defines a first plurality of indexing pins adapted to be received in said apertures in said one cage for axially aligning said spacing element with said one cage.

24. The cage assembly of claim 17 wherein said annular side wall of said one cage assembly and said spacing element are substantially oval-shaped so as to generally conform with cross-sectional configuration of the portion of the spinal column within which said cage assembly is to be inserted.